



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/709,929

06/07/2004

Hideo Kimura

JP920030087

3928

32074

7590

06/21/2006

INTERNATIONAL BUSINESS MACHINES CORPORATION
DEPT. 18G
BLDG. 300-482
2070 ROUTE 52
HOPEWELL JUNCTION, NY 12533

EXAMINER

KRAUSE, JUSTIN MITCHELL

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/709,929	KIMURA, HIDEO	
	Examiner	Art Unit	
	Justin Krause	3682	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species 1 in the reply filed on June 1, 2006 is acknowledged.
2. Claims 6 and 7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 1, 2006. Examiner further withdraws claim 8 as being dependent from withdrawn claim 6.

Drawings

3. The drawings are objected to because paragraph 0027 of the specification makes reference to plate 22(2) in figure 2, however figure 2 contains no such element.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: DX1, DX2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

Art Unit: 3682

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: in paragraph 0031, "the X-axis direction positioning means moves and positions objects in the Y-axis direction..." appears to be inconsistent. Paragraph 0016 states that the Y-axis direction positioning means moves and positions objects in the Y axis direction. As described, there is no X-axis movement.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-5 and 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 and 9 repeatedly use the pronoun "it" or "its". The repeated use of the word renders unclear what "it" is referring to. Examiner suggests writing out what "it" is in each instance to clarify the intent of the claim.

Claim 4 uses "a plate" to refer to what would appear to be first and second plates. Once "said plate" is used for the second time in line 9 of claim 4, it is unclear which plate is being referred to.

Claim 5 uses "a female screw" and "a male screw" repeatedly, and it is unclear which female screw and which male screw are referred to once the terms are repeated.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakino et al (US Patent 5,040,431).

Sakino discloses a positioning stage comprising:

- a base (1) having a first rail (20a, 20b) on its top surface;
- a first table (4) slidable along said first rail and having a second rail (a pair of rails straddle element 52) perpendicular to said first rail on its top surface;
- a first joint (43a, 43b) freely movable together with said first table toward said first rail relative to said base;
- a first clutch (124) for fixing said first joint to said base or releasing it from said base;

-first forcibly-moving means (42a,42b) for moving said first table toward said first rail relative to said first joint;

-a second table (5) slidable along said second rail;

-a second joint (51a) freely movable together with said second table toward said second rail relative to said first rail;

-a second clutch (124, both clutches are labeled 124, and have similar structure (see fig 9, fig 8 shows the location of each clutch) for fixing said second joint to said first table or releasing it from said first table; and

-a second forcibly-moving (52) means for moving said second table toward said second rail relative to said second joint.

Claims 2 and 3 fail to structurally further limit claim 1, the device of Sakino is capable of performing the functions as outlined in claims 2 and 3.

Regarding claim 4, the base comprises a plate parallel to said first rail on its top surface, said first clutch comprises a first clamping mechanism (108, 109) for clamping said plate,

The first table comprises a plate parallel to the second rail on its top surface, said second clutch comprises a second clamping mechanism (108, 109) for clamping said plate.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakino et al. in view of Takahashi (US Patent 4,766,465).

Sakino discloses all of the claimed subject matter as described above and discloses as prior art at the time of invention that screw and nut devices could be used as a driving actuator.

Takahashi teaches a first joint comprising a female screw (4), a first forcibly-moving means comprising a male screw (5) threaded into said female screw, a second joint comprising a female screw (not shown but described in Col 2, line 60) and a second forcibly-moving means (15) comprising a male screw threaded into said female

screw to allow for accurate high speed operation with fine movement. (col 1, lines 15-16)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Sakino and utilize forcibly-moving means as taught by Takahashi for the purpose of allowing accurate high speed operation with fine movement.

Conclusion

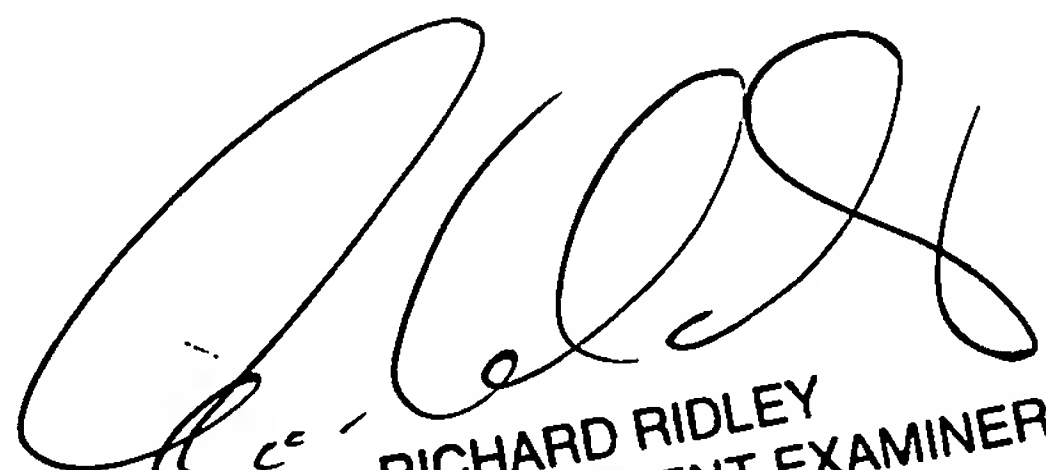
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK
6/15/06



RICHARD RIDLEY
SUPERVISORY PATENT EXAMINER